

AMENDMENTS TO THE CLAIMS

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Please amend the following Claims.

- 5/3/01
A5
1. **(Currently Amended)** A method of performing transluminal mitral annuloplasty, comprising the steps of:
providing a catheter, having a prosthesis thereon;
inserting the catheter into the venous system;
transluminally advancing the prosthesis into the coronary sinus; and
rotating a component of the prosthesis to cause the prosthesis to exert a compressive force on ~~the~~ adjacent atrial musculature.
 2. **(Currently Amended)** ~~A method as in~~ The method of Claim 1, further comprising the step of percutaneously accessing the venous system prior to the transluminally advancing step.
 3. **(Currently Amended)** ~~A method as in~~ The method of Claim 2, wherein the accessing step is accomplished by accessing one of the veins selected from the group consisting of internal jugular, subclavian and femoral veins.
 4. **(Currently Amended)** ~~A method as in~~ The method of Claim 1, further comprising the steps of first measuring the coronary sinus and then selecting an appropriately sized prosthesis prior to the inserting step.
 5. **(Currently Amended)** ~~A method as in~~ The method of Claim 1, further comprising the step of measuring hemodynamic function following the rotating step.
 6. **(Currently Amended)** ~~A method as in~~ The method of Claim 5, further comprising the steps of determining an ongoing drug therapy taking into account the post implantation hemodynamic function.
 7. **Withdrawn**
 8. **Withdrawn**
 9. **Withdrawn**
 10. **Withdrawn**
 11. **Withdrawn**
 12. **Withdrawn**
 13. **Withdrawn**

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14. ~~Withdrawn~~

15. ~~Withdrawn~~

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21. ~~Withdrawn~~

22. ~~Withdrawn~~

23. (New) The method of Claim 1, wherein the rotating a component step causes the prosthesis to bend into an arcuate configuration.

24. (New) The method of Claim 23, further comprising the step of locking the prosthesis in the arcuate configuration.

25. (New) The method of Claim 24, wherein the locking step comprises engaging a first threaded surface with a second threaded surface.

26. (New) The method of Claim 24, wherein the locking step comprises providing an interference fit.

27. (New) The method of Claim 24, wherein the locking step comprises providing an adhesive bond.

28. (New) The method of Claim 24, wherein the locking step comprises providing a knot.

29. (New) The method of Claim 24, wherein the locking step comprises providing a compression fit.

30. (New) The method of Claim 1, further comprising the step of deploying the prosthesis in the coronary sinus.

31. (New) The method of Claim 30, further comprising the step of removing the catheter from the venous system.

32. (New) The method of Claim 1, additionally comprising the step of monitoring hemodynamic function to assess mitral valve regurgitation.

33. (New) The method of Claim 32, wherein the monitoring step comprises monitoring hemodynamic function prior to the rotating step.

34. (New) The method of Claim 32, wherein the monitoring step comprises monitoring hemodynamic function during the rotating step.

35. (New) The method of Claim 32, wherein the monitoring step comprises monitoring hemodynamic function following the rotating step.

36. (New) The method of Claim 32, wherein the rotating step results in axially moving a forming element with respect to the prosthesis, to bend the prosthesis.

37. (New) The method of Claim 32, wherein the transluminally advancing step is accomplished using a catheter.

38. (New) The method of Claim 32, further comprising the steps of first measuring the coronary sinus and then selecting an appropriately sized prosthesis prior to the inserting step.

39. (New) The method of Claim 32, wherein the step of monitoring hemodynamic function is accomplished using transesophageal echo cardiography.

40. (New) The method of Claim 32, wherein the step of monitoring hemodynamic function is accomplished using surface echo cardiographic imaging.

41. (New) The method of Claim 32, wherein the step of monitoring hemodynamic function is accomplished using intracardiac echo cardiographic imaging.

42. (New) The method of Claim 32, wherein the step of monitoring hemodynamic function is accomplished using fluoroscopy with radiocontrast media.

43. (New) The method of Claim 32, wherein the step of monitoring hemodynamic function is accomplished using left atrial or pulmonary capillary wedge pressure measurements.

44. (New) The method of Claim 32, further comprising the step of tightening the prosthesis to reduce regurgitation.

45. (New) The method of Claim 44, wherein the tightening step is performed to achieve at least a one grade reduction in regurgitation.

46. (New) A method of performing transluminal mitral annuloplasty, comprising the steps of:

providing a catheter, having a prosthesis thereon;

inserting the catheter into the venous system;

transluminally advancing the prosthesis into the coronary sinus;

rotating a first component of the prosthesis with respect to a second component of the prosthesis; and

releasing the prosthesis from the catheter, such that the prosthesis exerts a force on the wall of the coronary sinus.

47. (New) The method of Claim 46, further comprising the step of percutaneously accessing the venous system prior to the transluminally advancing step.

48. (New) The method of Claim 47, wherein the accessing step is accomplished by accessing one of the veins selected from the group consisting of internal jugular, subclavian and femoral veins.

49. (New) The method of Claim 46, further comprising the steps of first measuring the coronary sinus and then selecting an appropriately sized prosthesis prior to the inserting step.

50. (New) The method of Claim 46, further comprising the step of measuring hemodynamic function following the rotating step.

51. (New) The method of Claim 50, further comprising the step of determining an ongoing drug therapy taking into account post implantation hemodynamic function.

52. (New) The method of Claim 46, further comprising the step of changing the shape of the prosthesis from an implantation configuration to a remodeling configuration in response to the rotating step.

53. (New) The method of Claim 52, wherein the prosthesis is reversibly movable between an implantation configuration for transluminal implantation and a remodeling configuration for exerting a force against a vessel wall.

54. (New) The method of Claim 52, wherein the prosthesis defines an arc when in the remodeling configuration.

55. (New) The method of Claim 54, wherein the changing the shape step comprises forming an arc which is concave in the direction of the mitral valve.

56. (New) The method of Claim 54, wherein a best fit constant radius curve corresponding to the arc has a radius within the range of from about 10 mm to about 20 mm.

57. (New) The method of Claim 46, further comprising the step of retaining the body in a remodeling configuration following the rotating step.

58. (New) The method of Claim 57, wherein the retaining step comprises engaging a lock on the prosthesis.

59. (New) The method of Claim 58, wherein the lock comprises an interference fit.

60. (New) The method of Claim 58, wherein the lock comprises a ratchet.

61. (New) The method of Claim 58, wherein the lock comprises an engagement surface, which is movable between a first, disengaged configuration and a second, engaged configuration.

62. (New) The method of Claim 58, wherein the lock is biased in a locked direction.

63. (New) The method of Claim 58, wherein the lock is biased in an unlocked direction.

64. (New) The method of Claim 46, further comprising a coating on the prosthesis.

65. (New) The method of Claim 46, further comprising the step of deploying an anchor for retaining the prosthesis at a deployment site within a vessel.

66. (New) The method of Claim 65, wherein the anchor comprises a distal extension of the implant.

67. (New) The method of Claim 65, wherein the anchor comprises a friction enhancing surface structure for engaging the wall of the vessel.

68. (New) The method of Claim 65, wherein the deploying an anchor step comprises deploying at least one barb for piercing the wall of the vessel.

69. (New) The method of Claim 46, wherein the prosthesis has an axial length of no more than about 10 cm.

70. (New) The method of Claim 46, wherein the maximum cross sectional ^{area} dimension through the implant is no more than about ¹⁵~~10~~ mm. (15, 3-5)

71. (New) The method of Claim 46, additionally comprising the step of monitoring hemodynamic function to assess mitral valve regurgitation.

72. (New) The method of Claim 71, wherein the monitoring step comprises monitoring hemodynamic function prior to the rotating step.

73. (New) The method of Claim 71, wherein the monitoring step comprises monitoring hemodynamic function during the rotating step.

74. (New) The method of Claim 71, wherein the monitoring step comprises monitoring hemodynamic function following the rotating step.

75. (New) The method of Claim 46, further comprising the step of locking the prosthesis to retain a compressive force on the annulus following the manipulating step.

76. (New) The method of Claim 71, wherein the step of monitoring hemodynamic function is accomplished using transesophageal echo cardiography.

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77. (New) The method of Claim 71, wherein the step of monitoring hemodynamic function is accomplished using surface echo cardiographic imaging.

78. (New) The method of Claim 71, wherein the step of monitoring hemodynamic function is accomplished using intracardiac echo cardiographic imaging.

79. (New) The method of Claim 71, wherein the step of monitoring hemodynamic function is accomplished using fluoroscopy with radiocontrast media.

80. (New) The method of Claim 71, wherein the step of monitoring hemodynamic function is accomplished using left atrial or pulmonary capillary wedge pressure measurements.

81. (New) The method of Claim 71, further comprising the step of determining an ongoing drug therapy taking into account post implantation hemodynamic function.
